

IN THE CLAIMS:

Amend claim 1, cancel claims 2-6 without prejudice or admission, and add new claims 7-15 as shown in the following listing of claims, which replaces all previous versions and listings of claims in this application.

1. (currently amended) A battery pack with a remaining battery power calculating function, comprising:

a secondary battery connected ~~between~~ to a plus side terminal ~~and a minus side terminal;~~

a protective circuit for protecting the secondary battery from overcharge and over-discharge;

a calculation circuit operating with ~~the~~ a minus side terminal as ~~the~~ a reference ~~to calculate~~ for calculating a remaining capacity of the secondary battery;

an N-channel MOS transistor connected between the secondary battery and the minus terminal for controlling charge and discharge of the secondary battery upon receiving a signal from the protective circuit in order to protect the secondary battery; and

a level shifter circuit connected between the calculation circuit and a communication terminal ~~provided for a level shift of an electric potential of the minus side terminal to a negative electrode side electric potential of the secondary battery.~~

2. - 6. (canceled).

7. (new) A battery pack with a remaining battery power calculating function according to claim 1; wherein the secondary battery is a lithium ion secondary battery.

8. (new) A battery pack with a remaining battery power calculating function according to claim 1; wherein the secondary battery is a 1-serial cell battery.

9. (new) A battery pack with a remaining battery power calculating function according to claim 1; wherein the level shifter circuit shifts an electric potential of the minus side terminal to a negative electrode side electric potential of the secondary battery.

10. (new) A battery pack with a remaining battery power calculating function according to claim 1; wherein the level shifter circuit shifts a negative electrode side electric potential of the secondary battery to an electric potential of the minus side terminal.

11. (new) A battery pack with a remaining battery power calculating function according to claim 1; wherein the secondary battery has a small number of serially connected cells.

12. (new) A battery pack with a remaining battery power calculating function, the battery pack comprising:

a plus side terminal;

a minus side terminal;

a secondary battery connected to the plus side terminal;

a protection circuit for protecting the secondary battery from overcharge and over-discharge;

a calculation circuit that uses a minus side electric potential of the secondary battery as a reference to calculate a remaining capacity of the secondary battery;

an N-channel MOS transistor connected between the secondary battery and the minus side terminal for controlling charge and discharge of the secondary battery in accordance with a signal from the protection circuit; and

a level shifter circuit connected between the calculation circuit and a communication terminal for shifting an electric potential of the minus side terminal to the minus side electric potential of the secondary battery.

13. (new) A battery pack with a remaining battery power calculating function according to claim 12; wherein the level shifter circuit shifts an input signal having a voltage level between the plus side terminal and the negative side

terminal to an output signal having a voltage level between the plus side terminal and a low side of the secondary battery.

14. (new) A battery pack with a remaining battery power calculating function according to claim 12; wherein the secondary battery is a lithium ion secondary battery.

15. (new) A battery pack with a remaining battery power calculating function according to claim 12; wherein the secondary battery is a 1-serial cell battery.

16. (new) A battery pack with a remaining battery power calculating function according to claim 12; wherein the secondary battery has a small number of serially connected cells.

17. (new) A battery pack with a remaining battery power calculating function, the battery pack comprising:

a plus side terminal;

a minus side terminal;

a secondary battery connected to the plus side terminal;

a protection circuit for protecting the secondary battery from overcharge and over-discharge;

a calculation circuit that uses a minus side electric potential of the secondary battery as a reference to calculate a remaining capacity of the secondary battery;

an N-channel MOS transistor connected between the secondary battery and the minus side terminal for controlling charge and discharge of the secondary battery in accordance with a signal from the protection circuit; and

a level shifter circuit connected between the calculation circuit and a communication terminal for shifting an electric potential of the minus side of the secondary battery to an electric potential of the minus side terminal.

18. (new) A battery pack with a remaining battery power calculating function according to claim 17; wherein the level shifter circuit shifts an input signal having a voltage level between the plus side terminal and a low side of the secondary battery to an output signal having a voltage level between the plus side terminal and the negative side terminal.

19. (new) A battery pack with a remaining battery power calculating function according to claim 17; wherein the secondary battery is a lithium ion secondary battery.

20. (new) A battery pack with a remaining battery power calculating function according to claim 17; wherein the secondary battery is a 1-serial cell battery.

21. (new) A battery pack with a remaining battery power calculating function according to claim 17; wherein the secondary battery has a small number of serially connected cells.